ORDER NO. EMID851124

Service Manual

Electronic Organ

SX-E8/SX-E8L

(EN), (EI), (EH), (EB), (EF), (EZ), (EW), (EL), (EP),
(EK), (XT), (XL), (XR), (XS), (X), (XX), (XV)

Subject: Change of Main P.C.B.

1. Discontinued external ROM of IC30 in order to employ Mask-ROM of IC1 (Microcomputer)
2. Changed IC21, IC22 to VCA of Dual type, and delete IC32, IC33.
3. In addition to this, some parts changed in order to rationalization of circuit.

Parts Name	Ref. No.	OLD	NEW
MAIN P.C.B.	EZ	SXPG126811 SXPG126851	**SXPG126881** EZ **SXPG1268131**
1. Change of Microcomputer			
IC	IC1 IC29 IC30 IC31	SVIGM8040HP (Microcomputer) SVIGTC40H373 (Latch) SVIG2764D (ROM) SVIGM74LS174 (Latch)	**SVIGM8050L558** **Deletion**
JUMPER WIRE	JP103, 105, 107, 109, 110, 113, 114, 148, 153, 156, 179, 185, 187, 221	Used	**Deletion**
	JP186, 188, 189, 190	——	**Addition**
	JP179	——	**Addition (change position)**
2. Change of VCA			
IC	IC21, 22	SVIGM5222L (VCA)	**SVIGM5241L (Dual VCA)**
	IC32, 33	SVIGM5222L (VCA)	**Deletion**
RESISTOR	R238, 239	——	**ERDS2TJ681 (680Ω)**
JUMPER WIRE	JP19, 21, 258, 260	Used	**Deletion**
	JP20, 35, 36, 257, 258, 259	——	**Addition**

Parts Name	Ref. No.	OLD	NEW
3. Others			
RESISTOR	R173 R13 R14 R28	ERDS2TJ102 (1KΩ) ERDS2TJ103 (10KΩ) ERDS2TJ153 (15KΩ) ERDS2TJ682 (6.8KΩ)	**JP (Jumper wire)** **JP (Jumper wire)** **ERDS2TJ273 (27KΩ)** **ERDS2TJ152 (1.5KΩ)**
CAPACITOR	C124 C27	ECEA1HN010S (Ⓝ 50V 1μF) ECCR1H221J (220PF)	**ECQV1H104JZ (TF 0.1μF)** **Deletion**
DIODE	D6	MA165TA5VT	**JP (Jumper wire)**

■ Changeover Period

- SX-E8: The suffix code of serial No. is changed from B to C in July, 1985.
- SX-E8L: The suffix code of serial No. is changed from C to D in July, 1985.

■ Precaution for Servicing

In case of change from microcomputer (SVIGM8040HP) of old P.C.B. to new microcomputer (SVIGM8050L558) of Mask-ROM, please change following method.

① IC1: SVIGM8040HP ⟶ SVIGM8050L558
② IC30: SVIG2764D ⟶ Discontinue
③ JP179: ⟶ Change position

■ Interchangeability

① Main P.C.B.: Original or new parts may be used in early or late production set.
Use original parts until exhausted, then stock new parts.
② SVIGM8040HP: Original parts may be used in early production sets only.
③ SVIGM8050L558: Please use SVIGM8050L558 to new Main P.C.B.
In case of supply to old Main P.C.B., please follow the precaution for servicing.

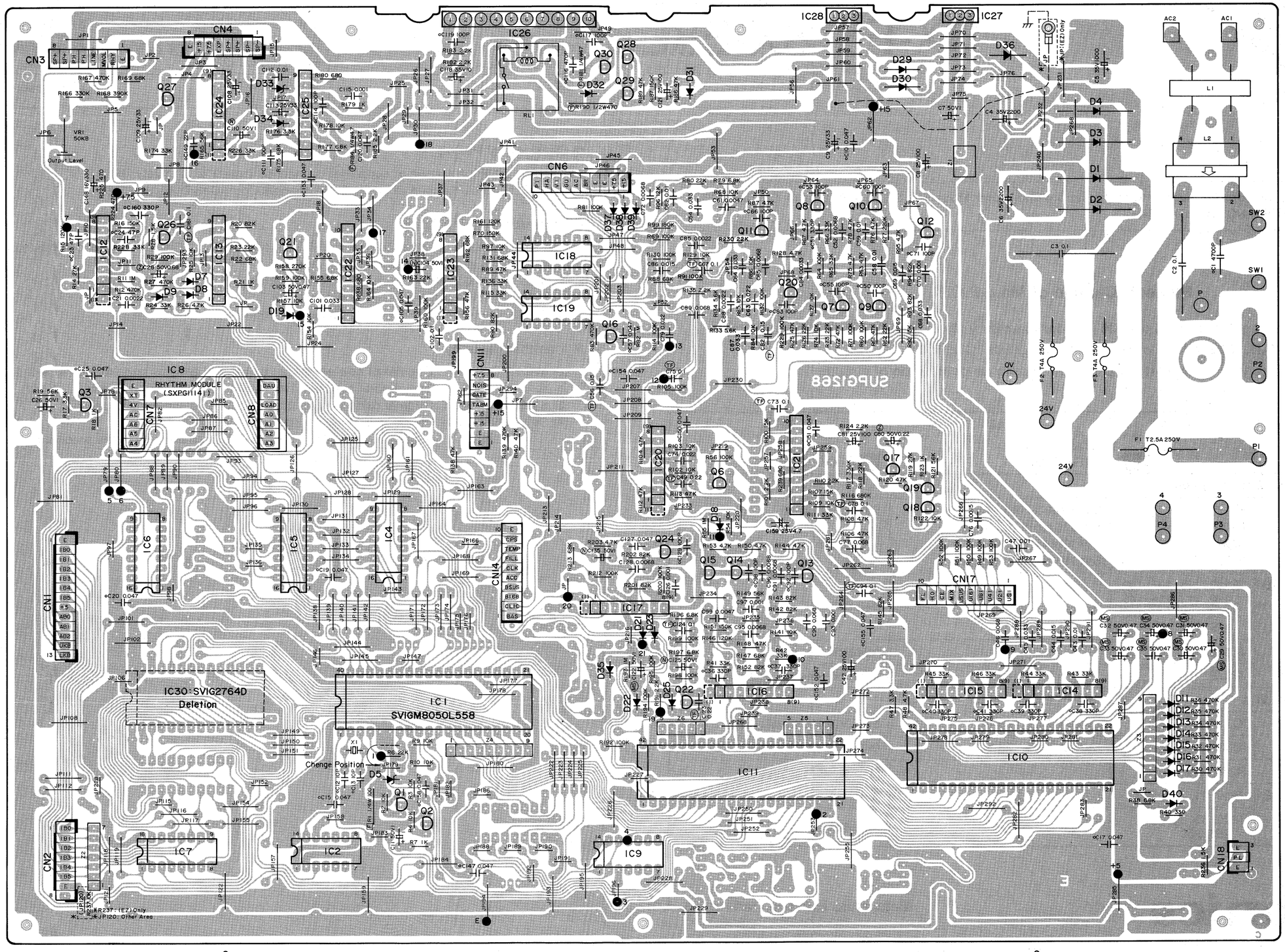
Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

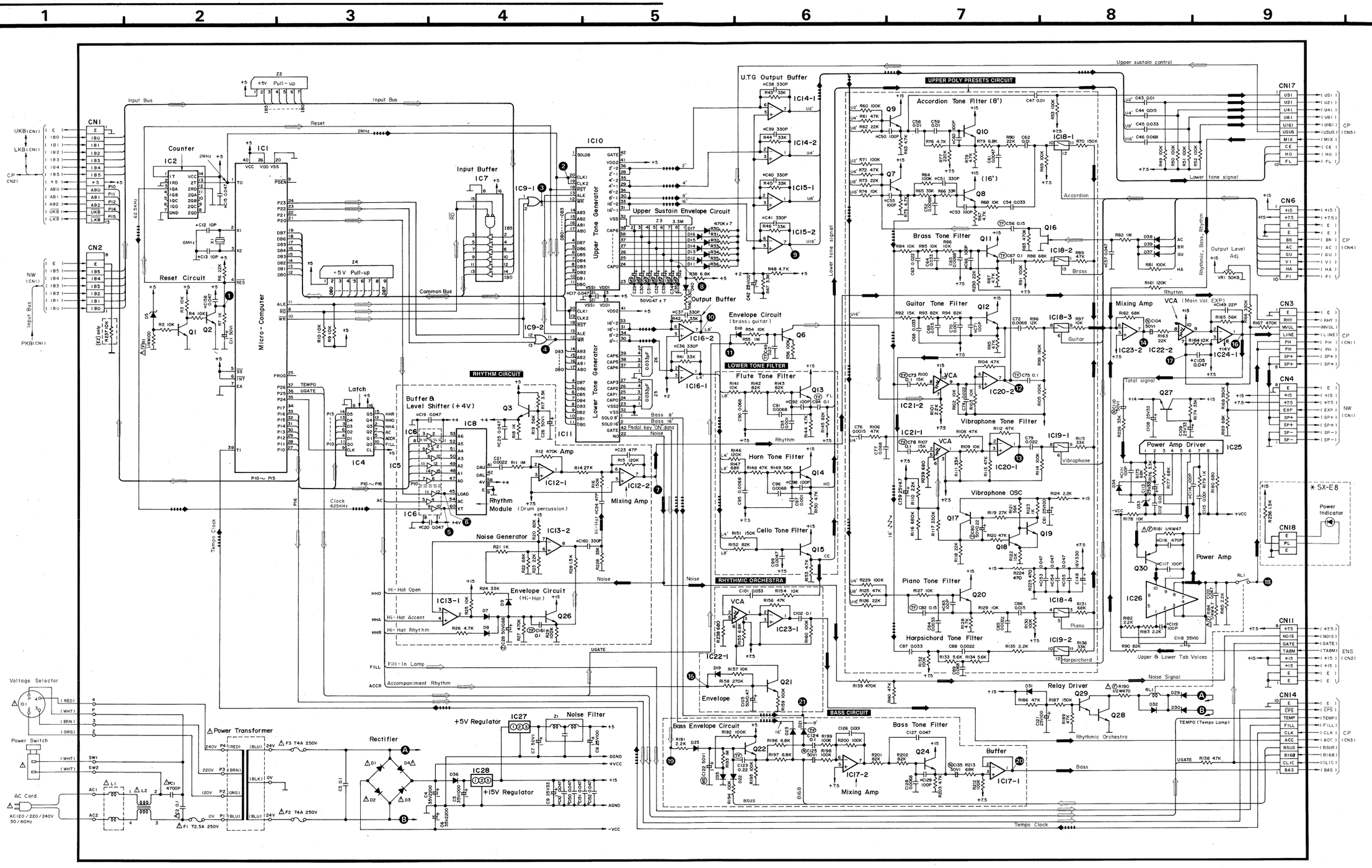
MAIN CIRCUIT BOARD (MAIN)

* Products for [EZ] only

SXPG1268131 **SXPG126881**



MAIN CIRCUIT DIAGRAM (MAIN)



Notes ■ **Important safety notice:**

Components identified by ⚠ mark have special characteristics for safety.
When replacing any of these components, use only manufacturer's specified parts.

■ **Signal line:**

Tone signal line.
Clock and sound source signal.
Control signal line.

NOTES:

- IC'S

IC1:	SVIGM8050L558	IC12, 14~17, 20, 23, 24:	SVIGM5218L
IC2:	SVIGTC40H393	IC13:	AN6913
IC4:	SVIGM74LS174	IC18, 19:	SVIGUPD4066B
IC5, 6:	SVIGTC4050BP	IC21, 22:	SVIGM5241L
IC7:	SVIG74HC365	IC25:	AN7060
IC8:	(SXPG11141)	IC26:	SVIGSTK0029N
IC9:	SVIGM74LS32	IC27:	AN78M05
IC10, 11:	SVIGMSM5232R	IC28:	AN7815

- DIODES

D1~4:	SVDS3V20
D5:	MA1036H
D7~9, 11~19, 21~23, 25, 31, 32, 34, 35, 37~40:	MA165TA5VT
D29, 30, 36:	SVDGSM1A02LF
D33:	MA1062TR

- TRANSISTORS

Q1~3, 6~15, 18~22, 24, 26~29:	2SC2320LFG
Q16:	2SJ40CD
Q17:	2SA1015-GR
Q30:	2SA1123R

- COMPONENT COMBINATIONS

Z1:	EXATA223S
Z2:	EXBP86472MM
Z3:	EXBP88335MM
Z4:	EXBP88472MM
Z5, 6:	EXATC4333

- QUARTZ OSCILLATOR

X1:	SVQG43U6001T

- RELAY

RL1:	SSYGMR30112

- COIL & LINE FILTERS

L1:	SLQG10W2D1
L2:	SLTGLF2